

COMPACT LOW COST CURRENT SENSOR AND CURRENT TRANSFORMER CORE HAVING IMPROVED DYNAMIC RANGE

Abstract of Disclosure

A current sensor and current transformer for monitoring electrical current is provided with a magnetic core having a mixture of magnetic materials to provide a low cost design in a compact configuration with an expanded dynamic range. The mixed material core can be fabricated either from stamped laminations or from coil stock and may include an air gap for activating a magnetic flux sensor. Multiple core configurations, including Figure-O, Figure-C, and Figure-8, having mixed material construction are disclosed and offer advantages over non-mixed material cores where dynamic range and frequency response characteristics are a consideration.

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Figures

Figure 1: A diagram illustrating the structure of a document. It shows a vertical sequence of elements: a header, a list of items, a section header, and a list of items. The elements are connected by lines, indicating a flow or relationship between them.